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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/627,656

07/28/2003

Takao Aichi

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EXAMINER

KASSA, HILINA S

ART UNIT

PAPER NUMBER

2609

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/627,656	Applicant(s) AICHI, TAKAO	
	Examiner Hilina S. Kassa	Art Unit 2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>08/26/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claim 8 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 8 recites a "computer program" which does not impart functionality to a computer or computing device, and is thus considered nonfunctional descriptive material. Such nonfunctional descriptive material, in the absence of a functional interrelationship with a computer, does not constitute a statutory process, machine, manufacture or composition of matter and is thus non-statutory per se. Thus, in the specification it is not clearly defined how the "program" is stored in a tangible medium paragraph [63]. Moreover, claim 8 defines "a code" that ties with the "computer program" which also encompasses non-statutory subject matter. While "functional descriptive material" may be claimed as a statutory product (i.e., a "manufacture") when embodied on a tangible computer readable medium, a code embodying that same functional descriptive material is neither a process nor a product (i.e., a tangible "thing") and therefore does not fall within one of the four statutory classes of § 101.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3, 4, 6, 7, 8,10,11 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugiura et al. (US Publication Number 2002/0080391 A1).

(1) regarding claim 1:

Sugiura et al. discloses a print control apparatus (238 figure 2) which can be connected to a server (23 figure 2, paragraph 15, lines 1-3) that generates print data on the basis of printer information and information to be printed (paragraph 14, lines 2-8) comprising:

an acquisition unit for acquiring printer information (231 figure 2) from a printer (2P figure 1) connected to said apparatus (paragraph 22, line 3, paragraph 14, lines 4-6);

a transmission unit for transmitting information required to specify the information to be printed, and the printer information to the server (paragraph 21, lines10-12, paragraph 14, lines 9-10);

a reception unit for receiving print data from the server as a response (paragraph 15, lines 5-6);

and a print control unit (paragraph 47, lines 1-5) for controlling the printer to print the print data (paragraph 15, lines 1-3);

(2) regarding claim 3:

Sugiura et al. further discloses, further comprising a display which is

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connected to a computer network (24, figure 12, paragraph 14, lines 1-4), and displays data provided by a server connected to the computer network (paragraph 22, lines 1-5), and wherein a location of the information to be printed is transmitted to the server via a window which is displayed on said display and is provided by the server (paragraph 22, lines 6-12);

(3) regarding claim 4:

Sugiura et al. further discloses, wherein a print mode of the printer is input via the window (WN4 figure 6, paragraph 87, line 2) which is displayed on said display (33b figure, paragraph 87, lines 4-6), and the print mode is transmitted to the server together with the printer information (paragraph 81, lines 1-5);

(4) regarding claim 6:

Sugiura et al. further discloses, a print system formed by connecting:
a print control apparatus (238 figure 2) of claim 1;
a server (23 figure 1,) for generating print data on the basis of printer data and information to be printed (paragraph 21, lines 1-10);
and a printer (2Q figure 1, paragraph 46, lines 1-4).

(5) regarding claim 7:

print control method using a server (23 figure 2, paragraph 15, lines 1-3) that generates print data on the basis of printer information and information to be printed (paragraph 14, lines 2-8), comprising:

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an acquisition step of acquiring printer information from a connected printer (paragraph 22, line 3, paragraph 14, lines 4-6);

a transmission step of transmitting information required to specify the information to be printed, and the printer information to the server (paragraph 21, lines 10-12, paragraph 14, lines 9-10);

a reception step of receiving print data from the server as a response (paragraph 15, lines 5-6); and

a print control step of controlling the printer to print the print data (paragraph 47, lines 1-5, paragraph 15, lines 1-3).

(6) regarding claim 8:

Sugiura et al. further discloses, a computer program product comprising: a code of an acquisition step of acquiring printer information from a connected printer (paragraph 22, line 3, paragraph 14, lines 4-6);

a code of a transmission step of transmitting information required to specify the information to be printed (paragraph 15, lines 5-9), and the printer information to the server (paragraph 21, lines 10-12, paragraph 14, lines 9-11);

a code of a reception step of receiving print data from the server as a response (paragraph 15, lines 5-6); and

a code of a print control step of controlling the printer to print the print data (paragraph 15, lines 1-3, paragraph 47, lines 1-5).

(7) regarding claim 10:

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Sugiura et al. further discloses, wherein wherein a location of the information to be printed is transmitted to the server via a window which is displayed on said display and is provided by the server (paragraph 22, lines 6-12) connected to a computer network (24, figure 12, paragraph 14, lines 1-4) and is provided by the server (paragraph 22, lines 1-5).

(8) regarding claim 11:

Sugiura et al. further discloses, a print mode of the printer is input via the window (WN4 figure 6, paragraph 87, line 2) which is displayed on said display (33b figure, paragraph 87, lines 4-6), and the print mode is transmitted to the server together with the printer information (paragraph 81, lines 1-5).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 5, 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiura et al. (US Publication Number 2002/0080391 A1) in view of Inora et al. (US Patent Number 6,145,947).

(1) regarding claims 2 and 9:

Sugiura et al. discloses, wherein the printer information

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contains at least one of the number of elements of a print head (paragraph 15, lines 7-9), an arrangement order of elements (paragraph 16, lines 1-4), a print system (paragraph 15, lines 1-9), and types of colors used.

Sugiura et al. (US Publication Number 2002/0080391 A1) discloses all of the subject matter as described above except for the types of colors used.

However, Inora et al. (US Patent Number 6,145,947) teaches where in the printer information contains types of colors used (column 1, lines 56-58, column 2, lines 4-8).

One skilled in the art would have clearly recognized that when printing, the print control can be performed without burdening the controller with the ink consumption detection, resulting in improved print speed (column 2, lines 4-8). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the method taught by Inora et al., print controller to contain the types of colors used in the method of Sugiura et al. because such feature enhances quality for the image print data and improves the print speed.

(2) regarding claims 5 and 12

Sugiura et al. (US Publication Number 2002/0080391 A1) discloses all of the subject matter as described above except for, specifically teaching a position of a non-ejection nozzle, and image data that is generated to control the printer to form an image using nozzles except for the non-ejection nozzle.

However, Inora et al. (US Patent Number 6,145,947) teaches a method for the information that pertains to a position of a non-ejection nozzle (column 5, lines 19-23)

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that the image data is generated to control the printer to form an image using nozzles except for the non-ejection nozzle (column 5, lines 23-28, abstract).

One skilled in the art would have clearly recognized that print image data indicating a pattern of ejection and non-ejection nozzles is produced from print data that is received from a host computer and printer information contains the types of colors used. After producing print image data indicating a pattern of ejection and non-ejection nozzles, the print image data is searched in blocks for an effective block including data indicating at least one ejection nozzle to count effective blocks (column 1, lines 51-56). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the method taught by Inora et al., image data that is generated to control the printer using nozzles except for non-ejection nozzle, into the method of Suigiura et al. because such feature enhances quality for the image print data.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fukuoh (US Publication Number 2003/0197892 A1) discloses a print server apparatus for acquiring a print job relating to a print data file to be printed from outside via a network, and for conducting an outputting process based on the print job. The print server apparatus comprising: a print job acquiring section to acquire the print job from outside via the network and to acquire the print data file corresponding to the print job; a file format identifying section to identify a data form of the print data file corresponding to the print job; a data form converting section to convert the data form of

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the print data file into a data form of an image data for conducting a printing process, and a image forming section to form an image based on the image data and to output the image onto a recording material.

7. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Hilina Kassa whose telephone number is (571) 270-1676.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu could be reached at (571) 272- 3036.

Any response to this action should be mailed to:

Commissioner of Patent and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Hilina Kassa

January 11, 2007



SHUWANG LIU
SUPERVISORY PATENT EXAMINER